CLEAN VERSION OF ALL PENDING CLAIMS

1. A method of obtaining a desired protein from a transgenic host organism, wherein the expression of the gene coding for this protein is not made until the host organism has been harvested, wherein

   (a) the transgenic host organism contains the gene coding for the desired protein such that it is only expressed in the presence of a chemical inductor; and

   (b) contacting with the inductor takes place via the phase surrounding the host organism after the host organism has been harvested.

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2. The method according to claim 1, wherein the phase is a gas phase.

3. The method according to claim 1, wherein the phase is a liquid phase.

4. The method according to claim 2, wherein step (b) comprises modifying the gas phase surrounding the host organism, atomizing a solution or a suspension of an inductor or flooding with a volatile inductor.

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5. The method according to claim 3, wherein step (b) comprises infecting with a virus suspension.

6. The method according to any of one of claims 1 to 5, wherein the gene coding for the desired protein is functionally linked with an inducible promoter.

7. The method according to claim 4, wherein modifying the gas phase is deoxidizing the gas phase and the promoter is a promoter inactive under aerobic conditions.

8. The method according to claim 7, wherein the promoter is the GapC4 promoter.

9. The method according to claim 6, wherein in step (b) contacting with the inductor takes place via atomization of the inductor RH5992.

10. The method according to any one of claims 1 to 3, wherein the expression of the gene coding for the desired protein is induced by compensating the functional inhibition of the transcription and/or translation.

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11. A method according to claim 10, wherein the gene coding for the desired protein is functionally linked with a promoter, so that between the promoter and the gene a nucleic acid is inserted such that

(a) it prevents the transcription and/or translation of the gene; and

(b) it can be excised after the induction, which results in the expression of the gene.

12. The method according to claim 11, wherein the nucleic acid is a nucleic acid which can be excised by an inducible recombinase.

13. The method according to claim 12, wherein the excisable nucleic acid and the recombinase are constituents of the recombinase-LBD system.

14. The method according to any of claims 1 to 3, wherein the gene coding for the desired protein is expressed by compensating the effect of the transcriptional, post-transcriptional, translational or post-translation repressor.

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16. The method according to claim 1, wherein the transgenic organism is a useful plant.

17. The method according to claim 16, wherein the useful plant is wheat, barley, corn, sugar beet, sugarcane, potato, a brassicaceae, a leguminous plant or tobacco.

18. A host organism according to claim 1, which contains the gene coding for the desired protein such that it is only expressed in the presence of a chemical inductor.